

Description of a new Genus of Tree-frogs, from Ecuador.

By W. PETERS.

PLECTROMANTIS, nov. gen.

Tongue elongated, posteriorly slightly emarginated and free. Palatal teeth. Tympanum distinct. Orifices of the Eustachian tubes nearly twice as large as the choanæ. A large elongated gland between the angle of the mouth and the shoulder, and over the latter a larger triangular one, less distinctly bounded above and behind. Fingers free, rounded at the tip, without adhesive disks; the metacarpus of the thumb and of the first finger armed each with a conical, pointed, hard spine. Toes free, thin, with narrow membranous borders, and with distinct, but small, broad adhesive disks at the apex; a flattened elongated knob at the base of the metatarsus of the first toe, and a smaller roundish one at that of the fifth. Transverse processes of the sacral vertebra narrow.

This genus is therefore very nearly allied to *Hylodes*, and is distinguished therefrom by the presence of parotids and the two remarkable spines on the inner side of the hand.

Plectromantis Wagneri, nov. spec.

The present species has at the first glance exactly the form of a *Rana temporaria* with rather thin toes. The head is as broad as long, with a somewhat prominent rounded snout. The nostrils are transversely oval, and are rather more distant from each other than from the apex of the snout, whilst their distance from the eyes is distinctly greater. The diameter of the very distinct tympanum is equal to the distance of the nostrils from each other, and amounts only to four-sevenths of the largest diameter of the eyes. The eyes are very prominent, and the inner transparent fold of the lower eyelid (the so-called nictitating membrane) is greatly developed. The intermaxillary and maxillary teeth are closely approximated, and have their points directed a little inwards and backwards. The palatal teeth stand at some distance behind the widely separated choanæ, upon two curved processes the convexity of which is anterior; they occupy about half the width of the palate. The skin of the body appears smooth, with the exception of the somewhat wrinkled sides. The anterior extremity exceeds the muzzle by the entire hand. The first finger extends beyond the second, which is a little shorter than the last, but considerably shorter than the last but one. The spines on the inside of the metacarpus are $1\frac{1}{2}$ millim. in length, and have the appearance of pointed warts; they are very hard, and appear to consist of a bony process, covered with a horny coat. The toes increase very considerably in length from the first to the fourth. The fourth toe is nearly twice as long as the third (19 : 11); whilst the fifth is intermediate between the second and third. The colour of the upper surface of the body and extremities is dark brown, and exhibits a few indistinct darker spots. The lower part of the sides of the body, the belly, the inner and outer surfaces of the thighs, and also the inside

of the leg, appear of a dingy white, with a more or less extended black marbling.

Total length 0·058 m. ; length of the head 0·023 ; length of the anterior extremity to the tip of the last finger but one 0·033 ; length of the hinder extremity to the tip of the fourth toe 0·095.

The single specimen of this species was discovered by Dr. Moritz Wagner on the west side of the Andes in Ecuador, and is now in the Zoological Museum of Munich.—*Monatsber. der Akad. der Wiss. zu Berlin*, April 1862, p. 232.

Discovery of Microscopic Organisms in the Siliceous Nodules of the Palæozoic Rocks of New York.

At Prof. Dana's suggestion, Dr. M. C. White, well known for his devotion to the microscope, has examined various specimens of the hornstone nodules found in the Devonian and Silurian rocks of this country, with a view to determine the presence of organisms analogous to those well known to exist in the flints of the chalk. This research has been rewarded by the discovery of abundant organisms referable to the Desmidiæ, besides a few Diatomaceæ, numerous spicula of sponges, and also fragments of the dental apparatus of Gastropods. Among the Desmids, there is a large variety of forms of *Xanthidia* supposed to be the sporangia of Desmids, besides an occasional duplicated Desmid ; also, lines of cells, some of which appear to be sparingly branched. The researches have been mostly confined to the hornstone of the corniferous limestone ; though extended also to the hornstone from the Black-River limestone and that of the sub-carboniferous limestone of Illinois, both of which contain some organisms.

The hornstone-nodules from the Black-River limestone (as well as the corniferous) have been since examined also by Mr. F. H. Bradley with similar results.

These observations will be regarded with much interest by geologists as well as by microscopists. They carry back to a very early epoch forms of life which have hitherto been looked upon as belonging only to a much more recent era in the life of our planet.

The analogy of these hornstone-nodules to the flints of the Chalk is obvious ; and the discoveries here announced may be regarded as establishing their similarity in origin. The organisms figured so closely resemble those of the flint that they might be taken for them ; it is difficult in all cases to make out a difference of species.

The extreme abundance of the hornstone-nodules in our palæozoic limestones will render it easy to multiply observations in this new field of research, which presents an interesting addition to the labours of the microscopist. It will be remembered by those who undertake such examinations that the use of turpentine renders the chips of chert almost as transparent as glass.—*Silliman's Journal*, May 1862, p. 385.